

S
639.9
SE-1-14
1997

PLEASE RETURN



JOB PROGRESS REPORT

RESEARCH PROJECT

STATE DOCUMENTS COLLECTION

JAN 7 1988

MONTANA STATE LIBRARY
1515 E. 6th AVE.
HELENA, MONTANA 59620

State: Montana

Project No. SE-1-14

Title: Statewide Endangered

Species Research

Job. No. 2

Title: Evaluation of techniques

for recovery of peregrine

falcons in Montana.

Period Covered: July 1, 1986 - June 30, 1987

Prepared by: Alvin Dorr

Approved by:

Glenn P. Erickson

Date: 15 September 1987

Glenn Erickson

Since this is a Progress Report only, results presented herein are not necessarily final and may be subject to change. For this reason, the information contained in this report may not be published or used for other purposes without permission of the Director.



ABSTRACT:

Twenty-three juvenile peregrine falcons (*Falco peregrinus anatum*) were released at five hack sites in southwestern Montana. Eighteen peregrines fledged successfully, reached independence, and dispersed. At least one young was fledged by 3 wild pairs, the fourth consecutive year of wild peregrine nesting in Montana.

Project personnel surveyed historic eyries and locations of previously reported peregrine occurrence in conjunction with an inter-agency coordinated survey effort. No peregrines were observed at these sites by project personnel.

Recommendations are made to continue the reintroduction of peregrines during 1988. A cluster of hack sites funded by various agencies is presently used in the general area, and the sites discussed here constitute the contribution of the Montana Department of Fish, Wildlife and Parks to peregrine recovery in a selected portion of the Northern Rocky Mountains. Recommendations are also presented to continue prioritized survey efforts to locate returning peregrines.



INTRODUCTION:

The American peregrine falcon (*Falco peregrinus anatum*) appears on both state and federal lists of endangered species. Reasons for its decline and its status in the Rocky Mountains were discussed previously (Flath 1981).

Montana, however, has not been adequately surveyed for active peregrine eyries. Occasional sightings of peregrines during the breeding season continue to be made, suggesting that unknown, active eyries may be present. Consequently, additional survey work is desirable.

Should active eyries be found which would be suitable for manipulation, consideration would be given to direct fostering of captive produced young peregrines. In the meantime, however, reintroduction of young to selected sites via hacking remains the favored option for attempts at peregrine recovery.

OBJECTIVE:

To reestablish a nesting population of peregrine falcons consistent with the goals of the Rocky Mountain/Southwest Peregrine Falcon Recovery Plan.

PROCEDURES:

Technical aspects of peregrine reintroduction were performed by personnel of the Peregrine Fund, Inc., through contract with the Department of Fish, Wildlife and Parks.

Site selection procedures and considerations were discussed previously (Flath 1981). Three of the previous sites (Flath 1985) were used again in 1987. The Lima Reservoir tower was not used in 1987 and two new additional locations were established (Hoppy's Ridge and BLM Tower).

Surveys were conducted at historic eyries, and at sites where peregrines had been previously reported. Other historic eyries and potential eyries were surveyed by various cooperators as part of an Inter-agency survey agenda. Methods used were based on procedures set forth in the Rocky Mountain/Southwest Peregrine Falcon Recovery Plan.

RESULTS:

Young peregrines were placed in each of the hack boxes during June and July, 1987 (Table 1). These were held in the boxes and fed daily with Coturnix quail until physical development indicated they were ready to fledge. Once the box fronts were removed, site attendants continued to provide food until the young peregrines reached independence and dispersed.



Table 1. Fledging data for twenty-three peregrine falcons in southwestern Montana, 1987.

Sex	Band #	Site	Fledged (Age)	Fate
F	987-84572L	CROWN BUTTE	26 JUNE (43 DAYS)	SUCCESSFUL
M	816-89524L	CROWN BUTTE	26 JUNE (43 DAYS)	SUCCESSFUL
F	987-84570L	CROWN BUTTE	26 JUNE (43 DAYS)	SUCCESSFUL
F	987-84569L	CROWN BUTTE	26 JUNE (43 DAYS)	SUCCESSFUL
M	816-89523L	87 MT TOWER	25 JUNE (43 DAYS)	SUCCESSFUL
M	816-89522L	87 MT TOWER	25 JUNE (43 DAYS)	SUCCESSFUL
F	987-84568L	87 MT TOWER	25 JUNE (43 DAYS)	SUCCESSFUL
M	816-89521L	87 MT TOWER	25 JUNE (43 DAYS)	SUCCESSFUL
F	987-84579L	HELL ROARING	29 JUNE (43 DAYS)	SUCCESSFUL
F	987-84577L	HELL ROARING	29 JUNE (44 DAYS)	SUCCESSFUL
M	816-89529L	HELL ROARING	29 JUNE (44 DAYS)	SUCCESSFUL
F	987-84580L	HELL ROARING	29 JUNE (43 DAYS)	SUCCESSFUL
F	987-84578L	HELL ROARING	29 JUNE (43 DAYS)	SUCCESSFUL
F	1807-00917L	STORM CASTLE	3 AUGUST (44 DAYS)	SUCCESSFUL
F	1807-00916L	STORM CASTLE	3 AUGUST (44 DAYS)	SUCCESSFUL
F	1807-00915L	STORM CASTLE	3 AUGUST (44 DAYS)	SUCCESSFUL
F	1807-00914L	STORM CASTLE	3 AUGUST (43 DAYS)	SUCCESSFUL
M	816-89578L	STORM CASTLE	3 AUGUST (44 DAYS)	SUCCESSFUL
M	816-89554L	HOPPY RIDGE	20 JULY (44 DAYS)	UNSUCCESSFUL
F	987-84596L	HOPPY RIDGE	20 JULY (44 DAYS)	UNSUCCESSFUL
M	816-89553L	HOPPY RIDGE	20 JULY (43 DAYS)	UNSUCCESSFUL
F	987-84594L	HOPPY RIDGE	20 JULY (43 DAYS)	UNSUCCESSFUL
F	987-84595L	HOPPY RIDGE	20 JULY (44 DAYS)	UNSUCCESSFUL

All young were banded with federal lock-on bands, and each carried a short range radio transmitter during the post release phase. Transmitters, designed to fall off after about 10 days, allowed site attendants to monitor the young peregrines during the critical period following opening of the box.

A total of 18 young peregrines fledged successfully and reached independence, five from the Hellroaring site, five from the Gallatin site, four from the Crown Butte site, and four from the New Tower. All of the young from the Hoppy Ridge site were lost to great horned owl predation during the first week after release. Details of the hacking procedure are presented by Burnham (1986).

In the Centennial Valley, a pair of peregrines returned to nest for a fourth year. This wild nesting was again successful and fledged at least one young (we were unable to get a complete count) (Table 2). A second pair returned for the second year to the Lima tower, however, they did not nest and an additional pair showed up at the Hell Roaring hack site but also did not nest.



Table 2. Peregrine falcon recovery efforts in southwestern Montana.

Year	Number Sites	Number Placed	Number Successful	Number Wild Pairs	Number Wild Fledged
1981	1	4	4	-	-
1982	2	8	6	-	-
1983	2	8	4	-	-
1984	3	12	10	1	2
1985	4	25	22	1	3
1986	3	13	11	2	5
1987	5	23	18	3	1+
Total		93	75		11+

Thus far, 75 peregrines have been successfully released in southwestern Montana, over the course of this study (Table 2). Returning peregrines have been observed as both banded and unbanded individuals with most being "unknown". The presence of unbanded peregrines suggests possible presence of an unknown wild eyrie. Young peregrines fledged from the Centennial wild site have not been banded.

No peregrines were found at any of the historic or potential eyries survey by project personnel.

During the course of this study, interagency coordination was accomplished between the Montana Department of Fish, Wildlife and Parks, U.S. Fish and Wildlife Service, U.S. Forest Service, Bureau of Land Management, the Peregrine Fund, Wyoming Game and Fish Department, and the Idaho Fish and Game Department, through meetings, correspondence, and personal communication. State share funding for this project was provided by Exxon on behalf of the Exxon affiliates operating in Montana, including Exxon Coal Resources and The Carter Mining Company, the Billings Gazette and numerous private donations.

RECOMMENDATIONS:

The success of reintroduction efforts in establishing breeding peregrines clearly points to the possibilities for recovery of peregrine falcons through hacking. However, first year mortality for peregrines in the wild is about 70 percent. In order to meet the objectives of this job, it will be necessary to continue reintroductions in southwestern Montana in 1988.

The possibility exists that additional sites may be used in southwestern Montana in 1988. With an expanded geographic area being potentially involved, interagency cooperation and funding is becoming more important. Liaison efforts should be increased as demands dictate.



Priorities need to be continued to facilitate efficiency in locating wild eyries. It is recommended that first priority survey efforts should continue to be directed at known historic eyries within 100 km. of existing hack sites. Other priorities for potentially suitable habitat in southwestern Montana should continue as recommended by Flath (1985).

LITERATURE CITED:

Burnham, W., ed. 1986. The Peregrine Fund's Rocky Mountain Program Operations Report, 1986. The Peregrine Fund. Inc., Boise, ID. In Press.

Flath, D.L. 1981. Evaluation of techniques for recovery of peregrine falcons in Montana. Montana Department of Fish, Wildlife and Parks, Job Progress Report., Project SE-1, Job 2. 3 pp.

———. 1985. Evaluation of techniques for recovery of peregrine falcons in Montana. Montana Department of Fish, Wildlife and Parks, Job Progress Report, Project SE-1, Job 2. 6 pp.

